



Malla Reddy Engineering College for Women

(Autonomous Institution, UGC Govt.of India)

Permanently Affiliated to JNTUH, Approved by AICTE, ISO 9001:2015 Certified Institution

NIRF-India Ranking - 2018, Accepted by MHRD, Govt. of India

Accredited by NBA and NAAC with 'A' Grade

Maisammaguda, Dhulapally,Secunderabad - 500 100.

EEE –Major Equipment List

S.NO	Name Of The Lab	Name Of The Equipment	Specifications	Quantity	Total Cost (In Rs)
1	Electrical Machines – I	Load Test On Dc Shunt Generator With Dc 3-Point Starter	5HP,230V	1	62,750
		Load Test On Dc Series Generator With Dc 3-Point Starter	5HP,230V	1	62,750
		Load Test On Dc Compound Generator With Dc 3- Point Starter	5HP,230V	1	62,750
		Hopkinson's Test On D.C Shunt Machine With Dc 3-Point Starter	5HP,230V	1	62,750
		Field Test On Dc Series Machines With Dc 3-Point Starter	5HP,230V	1	62,750
		Brake Test On Dc Compound Motor With D.C 3-Point Starter	5HP,230V	1	42,750
		Separation Of Losses In D.C Shunt Motor With D.C 3-Point Starter	5HP,230V	1	42,750
		Single Phase Resistive Load	1-Ph,10A	4	59,200
		Rheostats	370 OHMS/1.7A	9	22,410
		Rheostats	1500 OHMS/0.5A	2	5,380
		Ammeter	0- 10/20A	9	17,910
		Ammeter	0-1/2A	5	49,010
			0-2.5/5A	4	
		Ammeter	0-150/300V	10	
		Single Phase DPST Switches	---	12	5,880
		Three Phase TPST Switches Used For individual Panel	----	2	1,140
Wattmeter	150/300/600V,5/10A	1	3,550		
Magnetization	5HP,230V	1	49,800		

		Characteristics Of DC Shunt Generator			
		Accessories(3 Point Starter)	-----	1	2950
		Swinburne's Test	5HP,230V	1	25400
		Accessories(3 Point Starter)	-----	2	5,900
		Brake Test On DC Shunt Motor	5HP,230V	1	34,800
2	Electrical Machines-II	Single phase Transformer for conducting OC and SC Test and for Sumpners Test and for Scott connection of Transformers	3KVA, 230/110V	6	48,000
		Induction Motor With Drum Pulley Arrangement for Loading Purpose	3 Phase 5HP	1	24,000
		Star Delta Starter	1	2,550
		V and Inverted V Curves of 3 Phase	415V 3Kw Coupled to DC Shunt Motor 230V,3KW	1	54,000
		Auto Transformer Starter	3 Phase	1	4,000
		Alternator Coupled With 5HP,220V DC Shunt Motor for Regulation of 3 Phase Alternator By Synchronous Impedance and MMF Method	440V,3KVA,3 Phase	1	54,000
		DC 3 Point Starter	1	2,550
		Induction Motor for Equivalent Circuit of Induction Motor With DOL Starter	1 Phase,2HP,220V	1	18,900
		Alternator Coupled With 5HP DC Shunt motor For Determination of Xd and Xq	3KVA 440V 3Phase	1	50,000
		DC 3 Pt Starter	...	1	2,550
		5KVA 10A 3Ph Auto Transformer	5KVA 10A 3Ph	2	24,000
		Auto Transformer	1 ph ,15A	5	20,000

3	Control Systems	Control Systems Trainer Kits	230V AC, 50Hz	26	3,49,322
4	Power Electronics	Power Electronics Trainer Kits	230V,50Hz		22
		Regulated Power Supply	0-30V/2A	14	99,200
		Digital Multimeter	½ DIGIT	10	19,800
		Cathode Ray Oscilloscope	20MHZ	8	1,24,000
		Servo-Controlled Voltage	FT-2703 SINGLE PHASE 5KVA	1	11,445
		General Equipment	----	3	140,750
5	Electrical Circuit Analysis	Dual Trace Oscilloscope	20MH	05	61,,000
		Function Generators	1MH	05	15,000
		Electronic Circuit Experimental Kits	230V AC, 50Hz	12	13,945
		RPS, Breadboards,	230V AC, 50Hz	5	11,062
		Ammeters, Voltmeters, Multi Meters, DRB's, DCB's	-----	10	8,125
		Dual Trace Oscilloscope	20MH	02	24000
		Function Generators	1MH	02	5600
		Electrical Circuits Trainer Kits Including RPS, Breadboards, Ammeters, Voltmeters	230V AC, 50Hz	46	48,300
6	Electrical Measurements	Electrical Measurements Trainer Kits	230V AC, 50Hz	22	5,01,366
7	Electrical Workshop	Design & Fabrication of single Phase Inductance motor& sartor	230V AC, 50Hz	01	31,000.00
		Design & fabrication of Electro Magnet for Different Inductance values	230V AC, 50Hz	01	19,800.00
		Star Delta Starter wiring for automatic and manual operation	230V AC, 50Hz	01	18,000.00
		Wiring of Distribution Box with MCB/ELCB/RCCB/MCCB.	230V AC, 50Hz	01	28,000.00
		Wiring of Tube,Bulbs, LED and Luminaries	230V AC, 50Hz	01	13,800.00
		Assembly of contactors width wiring	230V AC, 50Hz	01	17,000.00
		Assembly of DOL & 3Point Starter with NVC Connections and over load protection	440V,3KVA,3 Phase	01	18,500.00

		Design and development of 5V Regulated power supply <i>Regulated Power Supply</i> :±5V/±12V/±15V@1A Fixed	230V AC, 50Hz	01	2,000.00
		Design and development of precision rectifier IC-78 :Precision Rectifier Using Op amp	230V AC, 50Hz	01	2,100.00
		IC-35 Active filter I/II orders using Op-Amp	230V AC, 50Hz	01	2,200.00
		Micro controller 8051 Dev board with on Board Interfaces	230V AC, 50Hz	01	17,500.00
		IC-51: Peak Detector	230V AC, 50Hz	01	2,500.00
		IC-61: Zero crossing Detector using Op-Amp	230V AC, 50Hz	01	2,500.00
		Bread Board Trainer with Voltage /Digital and Analog Signal sources for analog and Digital Circuits	230V AC, 50Hz	01	13,500.00
8	Power Systems	Characteristics of IDMT Over current relay	230V AC, 50Hz	1	42,380
		Differential protection of single phase transformer	230V AC, 50Hz	1	59,410
		Characteristics of Microprocessor based over voltage/Under voltage Relay	230V AC, 50Hz	1	44,316
		Testing of CT's & PT's and Insulator Strings	230V AC, 50Hz	1	59,410
		Sequence impedances of three phase synchronous Machine (Shunt motor & Alternator)	440V,3KVA,3 Phase		85,922
		Sequence impedances of three phase Transformer	440V,3KVA,3 Phase	1	41,026
		LG,LL and 3 phase Fault Analysis of 3 phase synchronous Machine(Shunt motor & Alternator)	440V,3KVA,3 Phase	1	85,922
		Power Circle Diagram of a	440V ,3 Phase	1	53,992

		3 Phase Transmission line model			
		ABCD Constants and Regulation of a 3 Phase Transmission line model	440V ,3 Phase	1	53,992
9	Micro Processors and Micro Controllers	Adm Tk μ p Kit Development Boards,	OnBoard Keypad, 7segment, LEDES,LCD, Memorychips& peripherals	15	1,87,200.0
		Adm Tk μ p 8085 Boards	8-Bit μ p,	15	
		Adm Tk μ p 8051 Boards	8-Bit μ c	15	
		Adm Tk μ p 8086 Boards	16 Bit μ p	15	
		Serial & Interfacing Cables,Adaptors, S/W Cds	---	15	
		Adc,Dac,Trafikia, Logic Analyzer	---	1	
10	Basic Electrical Engineering lab	Transient response of Series RL and RC circuits using DC excitation KIT	230V AC, 50Hz	1	4,000
		Transient response of RLC Series circuits using DC excitation KIT	230V AC, 50Hz	1	6,500
		KVL and KCL KCL	230V AC, 50Hz	1	3,500
		Calculation and verification of impedance and current of RL, RC and RLC series circuit kit		1	5,200
		Measurement of Voltage and Current and Real POWER in primary and Secondary circuits of a Single phase transformer	230V AC, 50Hz	1	38,000
		Three phase transformer verification and relationship between voltages and currents(star-delta, delta-delta, delta-star)	440V, AC 3-phase supply	1	34,500
		Three phase isolation transformer (0-230/440)V	230V AC, 50Hz	1	22,000
		Measurement of active and reactive power in abalanced three phase		1	68,000

		circuit			
		Rheostats	360ohms/1.2 A	1	2,000
		Dual trace CRO	20 Mhz	1	20,900
		Single phase Wattmeter UPF	(750/1500/3000)	5	22,500
		AC Voltmeter	(0-60 V)	2	4,000
		AC Voltmeter	(0-300 V)	4	8,000
		DC Ammeter	(0-2A)	2	4,000
		AC Ammeter	(0-2A)	2	4,000
		Digital DC Ammeter	(0-2/20/200)mA	10	7,500
		Digital AC Ammeter	(0-2/20/200)mA	5	7,750
		Digital DC Voltmeter	(0-30)V	10	7,500
11	FM &HM lab	Total Fluid Mechanics And Hydraulic Machines Equipment	230V,50Hz	10	6,70,400
12	Engineering Workshop Lab	Carpantary Tool Kit	08	46,000
		Fitting Tool Kit	----	08	66,400
		Tin Smithy Toll Kit	----	10	93,000
		House Wiring Tool Kit	----	10	43,000
		Ark Welding Machine & Tools	----	01	10,000
		Foundary Stations & Tool Kit	----	02	9200
		Gas Welding & Tool Kit	-----	01	20,000
		Black Smithy Furnace & Tool Kit	-----	01	40,440
		Power Tools Lathe Machine, Drilling Machine, Power Hacksaw, Air Plasma Cutting M/C, Wood Turning Lathe, Soldering Station, French Grinder, Plumbing Tool Kit	-----	08	1,36,285

